

REMARKS/ARGUMENTS

Claims 1-4, 6-8, 19, 21-25 and 27-34 are pending in the application. Claims 5, 9-18, 20 and 26 were previously cancelled. Through this Response, no new matter has been added. As explained in more detail below, Applicants submit that pending claims 1-4, 6-8, 19, 21-25 and 27-34 are in condition for allowance and respectfully request such action.

Claim Objections

Claim 1 is objected to because of certain informalities. Claim 1 has been amended to insert a semicolon after “assets” in line 6.

Applicants respectfully request entry of the amendment.

Rejections under 35 U.S.C. 102

Claims 1-4, 6-8, 19, 21-25 and 27-34 are rejected under 35 U.S.C. § 102(e) as being anticipated by Kenner (US 6269394). Applicants respectfully traverse the rejection in view of the Remarks below.

Applicants respectfully submit that Kenner suffers from the same deficiencies as the art previously applied to the claims. Specifically, independent claim 1 recites:

[a] manager, [that] in response to a frequently requested video asset becoming infrequently requested, is configured to select and transmit the infrequently requested video asset to at least one secondary partition of at least one server.

(emphasis added).¹ The Office Action alleges this Kenner discloses this feature at Col. 12 and Col. 17, lines 50-67. (Office Action dated September 13, 2010, p. 3). Applicants respectfully disagree. First, Kenner’s determinations of request frequencies require the use of predictive analysis (discussed later in this document). Further, even if such determinations were not based on predictive analysis, Kenner does not teach, disclose or suggest the subject matter recited in independent claims 1, 19 and 25 because at least:

¹ See also: Independent claims 19 and 25, which recite similar limitations.

A. Kenner's disclosure repeatedly teaches that infrequently requested assets are deleted, not transmitted to a "secondary partition" as recited in the rejected claims;

B. Col. 17 merely discloses moving files based upon usage of a device and does not consider the requests of any particular "requested video asset;" and

C. Col. 12 is silent regarding any secondary partition, but instead relates to a single partition.

I. Kenner does not disclose transmitting a frequently requested video "in response to [the video] becoming infrequently requested"

A. Kenner's infrequently requested assets are deleted

The frequently requested video assets of Kenner are not transmitted to a secondary partition "in response ... becoming infrequently requested," but instead are deleted. As repeatedly indicated by Kenner:

If there is insufficient capacity available in the local SRU 51 to store a requested clip, the search and update logic of the local SRU 51, discussed above, can delete some of the least-recently-used clips already stored to make room for the new data.

(Col. 27, ll. 42-51, emphasis added).

Clips that are infrequently accessed within a particular region can be deleted from the extended SRUs 66 and reacquired from remote SRUs 92 or 100 only when necessary.

(Col. 28, ll. 18-21, emphasis added).

Periodically, the PIM 64 can check to determine if any of the clips in the clip database have expired, or if any of the clips have not been accessed within a specified time period (e.g. one hour, one day, one week, or one month). If either is the case, the PIM 64 can invoke its storage management logic to delete the clips from the appropriate SRUs 66.

(Col. 30, ll. 33-39, emphasis added).

Thus, in each of the examples, deletion is the only action referenced in relation to the infrequently requested videos. Nothing within Kenner, including the portions cited by the Office Action, dispute this.

B. The teachings of Column 17 do not dispute the deletion of these video assets

The text of column 17 cited by the Examiner indicates:

In addition, since the SRU under-run count parameter identifies the location of "over-accessed" SRUs, audio-visual data will be moved or copied from these heavily loaded SRUs to more lightly loaded SRUs (based on their under-run levels), in an effort to distribute or flatten SRU demand. This load management process will occur during off-peak hours. The SRUs selected for copies or transferal of data will be identified from video usage information obtained from the "Audio-Visual Access List" located on the PIM 22.

(Emphasis added). Thus, the referenced audio-visual data is not moved or copied "in response to" the frequency of requests specific to the "requested video asset" but rather may be moved or copied if the particular SRU is heavily loaded. The overall loading of the SRU is independent from the requests for a particular asset. In fact, in accordance with these teachings of Kenner, a frequently requested video asset from a "lightly loaded" SRU would not be moved. Additionally, as explicitly stated in the cited text, the copying of files is performed "in an effort to distribute or flatten SRU demand," not in response to the requests of a video asset as claimed. For at least this reason alone, Applicants respectfully request reconsideration and withdrawal of the rejection.

Further, even if assuming the Office Action's interpretation of column 17 is correct (which Applicants disagree with), the cited text discusses "over-accessed data" and is silent regarding "infrequently requested" video assets. Clearly, "over-accessed data" would not include "infrequently requested" items. Applicants respectfully submit that Column 17 is entirely silent about "infrequently requested data" which is the element of the claim column 17 is recited as teaching. As explained above, Kenner repeatedly reiterates that such data would be deleted, not transmitted to a secondary partition.

Therefore, for at least this reason alone, Applicants respectfully request reconsideration and withdrawal of the rejection.

C. The teaching of Column 12 does not dispute the deletion of these video assets

The text of column 12 cited by the Office Action does not cure the deficiencies of column 17. First, column 12 relates only to an “Extended Storage and Retrieval Unit (Extended SRU)” which is labeled as such by the Heading located at the top of the column. Column 12 recites that:

The most requested audiovisual data, to include the FDVs, are written in contiguous allocation blocks closest to the system's disk storage allocation table. Inactive video segments are stored in contiguous allocation blocks furthest away from the "disk storage allocation table." In an alternative configuration, the disk storage allocation table is maintained in RAM or on a separate computer. Disk storage is organized in macro storage cells which insure that each video segment will always be stored in contiguous allocation blocks. This may be achieved, for example, by using a storage cell capable of storing a two minute audiovisual segment.

(Emphasis added). The recited text differentiates data as either 1) “inactive video segments” or; 2) “most requested audiovisual data.” As explained throughout Kenner, these determinations are not in “in response to” a frequently requested video becoming infrequently requested. In fact, Kenner more fully describes and defines “inactive” segments outside of the text cited by the Office Action. Specifically, Kenner clearly teaches that they are segments “selected” or marked as inactive based on their properties, not upon actual requests for the video and, may be deemed “active” upon changing a property of a file associated with the asset that may make the video more frequently requested, but not upon the actual frequency of the requests. In this regard, Column 15 more fully explains that:

Apart from providing the primary storage location for the video clips, the extended SRU 26 comprises an “active A/V listing,” and “inactive A/V listing,” a “secondary A/V listing,” and a “remote A/V listing.” The purpose for each of these listings will be explained in relation to a real estate application. In the real estate context, new property listings are typically of greater interest to the user and, therefore, would comprise the

"active A/V listing." Older property listings would not be selected as frequently and would comprise the "inactive A/V listing." However, a change in the property status, for example, reducing the price of the property may return the property to the "active A/V listing." The "secondary A/V listing" would comprise the secondary information associated with certain video clips. The "remote A/V listing" would typically comprise property that has already been sold. This information would still be useful for comparative pricing purposes, but would be accessed relatively infrequently.

(Col. 15, ll. 38-55, emphasis added). Thus, an attribute (the reduced price of the house) associated with the video determined whether to convert the video to an "active A/V listing," not the actual frequency of requests. This fact is further supported by Kenner's treatment of new videos. Specifically, new videos (which could not have been requested yet) are likely to be stored as if they are frequently requested. For example, under the heading "Storing a Video Clip," Col. 16 provides:

When a new video clip is received, the PIM 22 must first determine which extended or remote SRU 26 or 38 will store the audio-visual information. The PIM 22 identifies the IMs 34 supporting that video segment's region by comparing the regional identifiers. The PIM 22 then checks to see whether these SRUs have available FDV storage. This is because most new video clip listings will fall into the FDV category. If sufficient FDV storage is found, the video clip is stored on that SRU (26 or 38), and the supervising IM's (22 or 34) A/V Data Index database is updated. However, if no suitable storage is found, the PIM 22 will determine the SRU with the lowest FDV allocation and store the video to that SRU.

(Col. 16, ll. 32-44, emphasis added). Thus, new video clips are usually marked as FDV, which Kenner refers to as "frequently downloaded videos," before they are even requested. Furthermore, the determination of storing the new video (which has not been requested yet) in the particular SRU is based on whether the allocation for all FDV videos is sufficient, not in response to the requests for that video asset.

Therefore, for at least this reason alone, Applicants respectfully request reconsideration and withdrawal of the rejection.

In view of the foregoing, Applicants respectfully submit that Kenner, either alone or in combination with any other art of record, does not teach, disclose, or suggest the subject matter of independent claims 1, 19 or 25. The dependent claims are allowable for

at least the same reasons. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection in regards to claims 2-4, 6-8, 20- 21-24 and 27-34.

II. Kenner's predictive analysis does not teach the subject matter of independent claims 1, 19, or 25

Independent claim 1 recites:

wherein the manager, in response to an infrequently requested video asset becoming frequently requested, is configured to select and transmit the frequently requested video asset to at least one primary partition of at least one server

(Emphasis added).² In contrast, Kenner's disclosure regarding requesting assets indicates that such information is combined with other data to create a predictive analysis of a hypothetical level of requests to estimate a predictive load of a SRU. Thus, any movement of infrequently requested videos becoming frequently requested is not "in response to" the video "becoming frequently requested." Rather, at most, it's in response to a predictive analysis that a future request threshold may be met for a plurality of videos that are located on an SRU. Specifically, Kenner first teaches that such usage information "is used to predict future usage." (Kenner, Col. 30, ll. 60-61, emphasis added). The predicted future usage is not specific to each clip, but instead is combined with predicted usage of the category assigned to that clip. (See, e.g., Kenneth, Col. 30, ll. 54-Col. 31, ll. 11). The predicted future usage of the clip combined with the predicted future usage of videos in that category are then "combined to estimate load." (Kenner, Col. 31, ll. 12-13). In fact, to Kenner distinguishes these predictive estimations from actual requests by expressly stating that:

At the end of each period, projected load can be compared to actual load, and techniques known in the art (such as neural networks) can be applied to improve the weightings for future periods.

² See also: independent claims 19 and 25, which recite similar limitations.

(Kenner, Col. 31, ll. 14-17, emphasis added). Thus, actual requests are never utilized to determine whether to transmit the video. Instead, Kenner admits that the projected load is different than actual load, and then acknowledges that the actual load (which is different than specific requests for a single video asset) is used to further improve the predictive methodology. Even more importantly, Kenner's teachings don't stop here, but rather further analysis determines "predictive" bandwidth requirements for the specific SRU.

Based on the projections discussed above, the PIM 64 estimates the SRU 66 bandwidth required to accommodate the predicted downloads. This estimate can be made, for example, by multiplying the size of each file by the number of expected downloads in the period. If the projected required bandwidth is less than a threshold (e.g. 10-50%) of the capacity of a single SRU 66, then no load balancing need be undertaken. However, if the projected required bandwidth is higher, then the files must be distributed over a sufficient number of extended SRUs 66 until none exceeds the threshold. This is accomplished by evenly distributing the highest projected usage file over the number of SRUs sufficient to accommodate the number of projected simultaneous downloads for the file at the users' projected download speeds. The distribution is performed by the storage management logic invoked by the PIM 64 desiring to distribute files

(Kenner, Col. 31 18-54, emphasis added). The following paragraph of Kenner then reminds the reader that "[w]here there are more copies of files than are predicted to be needed, the PIM 64 will use the storage management logic to delete the excess files from those SRUs 66 with the highest predicted loads (based on clips other than the one being deleted)." (Kenner, Col. 31, Col. 55-39, emphasis added). Although Kenner does indicate that current frequency requests may be tabulated, Applicants understanding is that it is utilized in either a) the analysis described above, or 2) in response to determining that the load of a specific SRU meets a threshold (See, e.g., Kenner, Col. 31, 40-67). Therefore, for at least this reason alone, Applicants respectfully request reconsideration and withdrawal of the rejection.

In view of the foregoing, Applicants respectfully submit that Kenner, either alone or in combination with any other art of record, does not teach, disclose, or suggest the subject matter of independent claims 1, 19 or 25. The dependent claims are allowable for at least the same reasons. Therefore, Applicants respectfully request reconsideration and withdrawal of the rejection in regards to claims 2-4, 6-8, 20- 21-24 and 27-34.

CONCLUSION

All rejections having been addressed, applicant respectfully submits that the instant application is in condition for allowance, and respectfully solicits prompt notification of the same. Should the Examiner have any questions, the Examiner is invited to contact the undersigned at the number set forth below.

Respectfully submitted,

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